

application, in combination with Tanaka, U.S. Patent No. 5,636,243.

In response, claims 1, 4, 8 and 13 have been amended to recite that the pilot signal is used for demodulation of data signals on a receiver side. The Applicant respectfully submits that support for the proposed amendments are found in page 8, lines 16-29; page 9, lines 9-17; and page 16, lines 16-37, continuing through page 17, lines 1-16 of the specification, which describe the detection, from the pilot signals, of a timing for traffic channel demodulation.

In addition, the Applicant respectfully submits that claims 1, 4, 8 and 13 are non-obvious in view of the references because there would be no inventive to combine the prior art disclosed in the present application with the teachings of Tanaka '243 for the purpose of solving the problems addressed by the present invention, as the control channel of Tanaka '243 is used for a different purpose than the pilot signal of the present invention. The TDMA control channel of Tanaka '243 is used for control information and data synchronization, and is never used for coherent demodulation. Rather, the TDMA control channel is used for data synchronization *after demodulation such as coherent demodulation or differential demodulation is completed*. As shown in Fig. 5 of Tanaka '243, a signal is received by the receiver and the control channel is detected by the control channel detector 205. A synchronization is established based on the detected control channel, and the controller 206 and the timing generator 207 respectively generate control signals in the synchronized state. The power supplying controller 208 is controlled by the timing generator 207 so as to turn "ON" or "OFF" the power supply to the receiver 203 and the transmitter 204. It can be seen from the original disclosure of Tanaka '243 that the control channel is used to control the power supply to the transmitter 203 and the receiver 204, and is not used for coherent demodulation.

In contrast, as pointed out by the Examiner, the pilot signal of the present invention is used as a carrier phase reference for coherent demodulation. In the embodiment described in the specification, information resulting from receipt of the pilot signal is, as a phase reference, applied to despreaders 9 and 10 of the traffic channel receive unit. That is, the purpose for which the pilot signal is used is coherent demodulation.

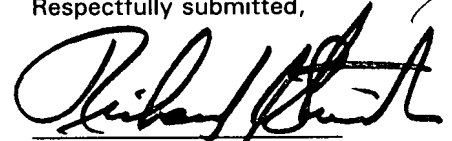
Thus, the Applicant respectfully submits that there would be no incentive to combine the prior art disclosed in the present application with the TDMA control channel described in Tanaka '243 for the purpose of providing a pilot signal for use in coherent demodulation, because the TDMA control channel of Tanaka '243 is used for ON/OFF control of a power supply, and is never used for coherent demodulation. For the above reasons, claims 1, 4, 8 and 13 as amended are believed to be patentable over the cited prior art.

The Examiner also raises an obviousness objection with respect to claims 6

and 7 in view of the prior art disclosed in the present application in combination with both Tanaka and Marchetto et al., U.S. Patent No. 5,414,734. In response, the Applicant respectfully submits that as amended claims 4, 8 and 13 are deemed patentable over the cited prior art, claims 6-7, claims 9-12 and claims 14-17, respectively, are also deemed patentable as they depend from claims 4, 8 and 13.

In light of the foregoing remarks, it is believed that all outstanding rejections of record have been overcome. The Applicant respectfully submits that this application should now be in condition for allowance and respectfully request favorable consideration.

Respectfully submitted,



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